IN THE CLAIMS:

1. (Currently Amended) An electron-emitting device comprising:

(A) a fiber comprising carbon as a main ingredient; and

(B) a layer ~~including~~ made of a metal-oxide semiconductor, wherein metal-oxide of the metal-oxide ~~thereof~~ semiconductor is selected from the group consisting of titanium oxide, zirconium oxide, and niobium oxide,

wherein the fiber ~~comprising carbon as a main ingredient~~ is ~~disposed on~~ electrically connected with the layer and the fiber ~~comprising carbon as a main ingredient~~ partially contains [[Pd]] a catalyst.

2. (Currently Amended) The electron-emitting device according to claim 1, wherein the catalyst is Pd and the catalyst is disposed at a position where the fiber ~~comprising carbon as a main ingredient~~ is in contact with the layer.

3. (Currently Amended) The electron-emitting device according to claim 1, wherein the catalyst is Pd and the catalyst is disposed on an end of the fiber ~~comprising carbon as a main ingredient~~ or on an intermediate point of the fiber ~~comprising carbon as a main ingredient~~.

4. (Original) The electron-emitting device according to claim 1, wherein the fiber comprising carbon as a main ingredient is grown via Pd particles disposed on the layer.

5. (Previously Presented) The electron-emitting device according to claim 1, wherein the fiber comprising carbon as a main ingredient includes a graphene.

6. (Previously Presented) The electron-emitting device according to claim 1, wherein the fiber comprising carbon as a main ingredient includes a plurality of layered graphenes.

7. (Previously Presented) The electron-emitting device according to claim 6, wherein the plurality of graphenes is layered in an axial direction of the fiber comprising carbon as a main ingredient.

8. (Previously Presented) The electron-emitting device according to claim 1, wherein the fiber comprising carbon as a main ingredient includes graphite nanofiber, a carbon nanotube, or an amorphous carbon, or a mixture thereof.

9. (Previously Presented) The electron-emitting device according to claim 1, further comprising:

a first electrode disposed on a surface of a substrate;

a second electrode disposed on the surface of the substrate and spaced apart from the first electrode; and

means for applying a potential higher than a potential applied to the first electrode, to the second electrode,

wherein at least a part of the layer is disposed on the first electrode.

10. (Original) The electron-emitting device according to claim 9, wherein the first electrode is larger in thickness than the second electrode.

11. (Original) The electron-emitting device according to claim 9, wherein the fiber comprising carbon as a main ingredient is disposed farther than the second electrode from the surface of the substrate.

12. (Original) The electron-emitting device according to claim 9, wherein the surface of the substrate has a step height such that the first electrode is higher than the second electrode.

13. (Previously Presented) An electron source comprising a plurality of electron-emitting devices,

wherein each electron-emitting device is an electron-emitting device according to any one of claims 1 to 12.

14. (Previously Presented) An image-forming apparatus comprising:

an electron source according to claim 13; and

an anode with which an electron emitted from the electron source comes into collision.

15. (Original) The image-forming apparatus according to claim 14, wherein the anode has a phosphor.

16. (Currently Amended) An electron-emitting device comprising:

(A) a first electrode and a second electrode[[s]] disposed with a gap on a surface of a substrate;

(B) a metal-oxide semiconductor layer disposed on the first electrode, wherein metal-oxide of the metal-oxide semiconductor layer is selected from the group consisting of titanium oxide, zirconium oxide, and niobium oxide;

~~(B)~~ (C) a plurality of fibers each comprising carbon as a main ingredient electrically connected with the ~~first electrode~~ layer; and

~~(C)~~ (D) means for applying a voltage higher than a voltage applied to the first electrode, to the second electrode,

wherein ends of the plurality of fibers ~~each comprising carbon as a main ingredient~~ are higher than a surface of the second electrode from the surface of the substrate~~; and~~

~~(D)a layer including a metal-oxide semiconductor, wherein the metal-oxide thereof is selected from the group consisting of titanium oxide, zirconium oxide, and niobium oxide, the layer being disposed between the first electrode and the plurality of fibers each comprising carbon as a main ingredient~~.

17. (Original) The electron-emitting device according to claim 16, wherein the layer and the plurality of fibers each comprising carbon as a main ingredient are connected to each other via a catalyst material.

18. (Previously Presented) The electron-emitting device according to claim 17, wherein the catalyst material is a material selected from the group consisting of Pd, Ni, Fe, Co, and an alloy of these.

19. (Original) The electron-emitting device according to claim 16, wherein the first electrode is larger in thickness than the second electrode.

20. (Previously Presented) An electron source comprising a plurality of arranged electron-emitting devices,

wherein each electron-emitting device is an electron-emitting device according to any one of claims 16 to 19.

21. (Previously Presented) An image-forming apparatus comprising:

an electron source; and

an image-forming member;

wherein the electron source is an electron source according to claim 20.

22. (Currently Amended) An electron-emitting device comprising:

(A) a fiber comprising carbon as a main ingredient; and

(B) a layer ~~including~~ made of a metal-oxide semiconductor, wherein [[the]] metal-oxide ~~thereof~~ of the metal-oxide semiconductor is selected from the group consisting of titanium oxide, zirconium oxide, and niobium oxide,

wherein the fiber ~~comprising carbon as a main ingredient~~ is ~~disposed~~ on electrically connected with the layer, and

the fiber ~~comprising carbon as a main ingredient~~ includes a plurality of graphenes.

23. (Previously Presented) The electron-emitting device according to claim 22, wherein the plurality of graphenes are layered in an axial direction of the fiber comprising carbon as a main ingredient.

24. (Original) The electron-emitting device according to claim 22, wherein the fiber comprising carbon as a main ingredient is grown via Pd particles disposed on the layer.

25. (Original) The electron-emitting device according to claim 22, wherein the fiber comprising carbon as a main ingredient contains Pd.

26. (Previously Presented) An electron source comprising a plurality of electron-emitting devices, wherein each electron-emitting device is an electron-emitting device according to any one of claims 22 to 25.

27. (Previously Presented) An image-forming apparatus,

the apparatus comprising an electron source and an image-forming member, wherein the electron source is an electron source according to claim 26.

28.- 35. (Cancelled)

36. (Currently Amended) An electron-emitting device comprising:

(A) a fiber comprising carbon; and

(B) a layer ~~including~~ made of a metal-oxide semiconductor, wherein [[a]] metal-oxide ~~thereof~~ of the metal-oxide semiconductor is selected from the group consisting of titanium oxide, zirconium oxide, and niobium oxide,

wherein the fiber is ~~disposed on~~ electrically connected with the layer.

37. (Currently Amended) An electron-emitting device comprising:

(A) a plurality of fibers each comprising carbon; and

(B) a layer ~~including~~ made of a metal-oxide semiconductor, wherein [[a]] metal-oxide ~~thereof~~ of the metal-oxide semiconductor is selected from the group consisting of titanium oxide, zirconium oxide, and niobium oxide,

wherein the fibers are ~~disposed on~~ electrically connected with the layer.

38. (Previously Presented) The electron-emitting device according to claim 36 or 37, wherein the fiber comprises a plurality of graphenes.

39. (Previously Presented) The electron-emitting device according to claim 36 or 37, wherein the plurality of graphenes are stacked in an axial direction of the fiber.

40. (Previously Presented) An electron source comprising a plurality of electron-emitting devices, wherein each electron-emitting device is an electron-emitting device according to claim 36 or 37.

41. (Previously Presented) An image-forming apparatus comprising an electron source and a light-emitting member which emits light by irradiation of electrons emitted from the electron source, wherein the electron source is an electron source according to claim 40.

42. (New) An electron-emitting device comprising:

(A) a plurality of fibers each comprising carbon; and

(B) a layer made of a metal-oxide semiconductor, wherein metal-oxide of the metal-oxide semiconductor is selected from the group consisting of titanium oxide, zirconium oxide, and niobium oxide,

wherein the fibers are electrically connected with the layer without a tunnel junction.

43. (New) An image-forming apparatus comprising a plurality of electron-emitting devices and a light-emitting member which emits light by irradiation of electrons emitted from a plurality of electron-emitting devices, wherein each of the electron-emitting device is an electron emitting-device according to claim 42.

44. (New) An electron-emitting device comprising:

(A) a plurality of fibers each comprising carbon; and

(B) a layer made of an oxygen-deficient type metal-oxide semiconductor, wherein metal-oxide of the oxygen-deficient type metal-oxide semiconductor is selected from the group consisting of titanium oxide, zirconium oxide, and niobium oxide,

wherein the fibers are electrically connected with the layer.

45. (New) An image-forming apparatus comprising a plurality of electron-emitting devices and a light-emitting member which emits light by irradiation of electrons emitted from a plurality of electron-emitting devices, wherein each of the electron-emitting device is an electron emitting device according to claim 44.